Lieut. Alfred Henry Laurence Ferris, R.N.R., Hughenden, Coleraine Road, Westcombe Park, S.E. (proposed by P. Groves-Showell); and

Edward MacFarlane, Under Secretary for Lands and Chief Surveyor for New South Wales, Department of Lands, Sydney, Australia (proposed by T. F. Furber).

Sixty-eight presents were announced as having been received since the last meeting, including, amongst others:—

Publications of the West Hendon House Observatory, No. 3, presented by T. W. Backhouse; 20 charts of the Astrographic Chart of the Heavens, presented by the Royal Observatory, Greenwich; J. F. Pfaff, Commentatio de ortibus et occasibus siderum apud classicos commemoratis, 1786, presented by E. B. Knobel.

Note on the Annual Inequality in the Frequency of Magnetic Disturbance. By William Ellis, F.R.S.

In Mr. Maunder's paper, *Monthly Notices*, 1905 May, he suggests that the annual inequality in frequency of magnetic disturbance (maxima near the equinoxes, and minima near the solstices) "is not due to a single cause alone, but to a combination of two or more, inasmuch as the curve is not symmetrical about either the equinoxes, or the dates when the Sun's equator is on the centre of the disc." On this I would remark that in my paper, *Monthly Notices*, 1904 January, I have shown the annual inequality in frequency of magnetic disturbance to be very similar, in our latitude, to that of frequency of the aurora. Further also that, as regards the aurora, the strongly marked winter minimum of frequency in our latitude becomes less and less marked as more northern latitudes are approached, until in high latitudes the equinoctial maxima and the winter minimum become merged in one winter maximum. Remarking, then, the similarity in the seasonal frequency of magnetic disturbance to that of the aurora in our latitude it becomes a question, as I have pointed out, what happens in higher latitudes as respects frequency of magnetic disturbance. Do the equinoctial maxima and winter minimum become similarly merged, as in the case of the aurora, in one winter maximum? That is to say, as with the aurora, so also with magnetic disturbance, the effects observed at any given place may be in a way such that the latitude of the place of observation and its geographical position become to an extent dominant factors in determining the local phenomena, in addition to the relations of a more strictly cosmic character.

The Moon's observed Latitude, 1847–1901. By P. H. Cowell.

In this paper the coefficient of every term in the Moon's latitude greater than 0″·10 is obtained from the Greenwich meridian observations between 1847 and 1901. The observed motion of the node is reserved until the observations from 1750 to 1851 have been discussed. One of the largest corrections required by the present tables, however, depends upon Hansen's tabular place of the node.

Tables I., II., III. give the scheme of analysis.

Tables IV., V., VI. give the subject matter of the analysis, and Tables VII. and VIII. the results.

The errors analysed are taken directly from the Greenwich volumes and from vol. l. of the *Monthly Notices.* They are in the sense tabular minus observed for ecliptic north-polar distance, or observed minus tabular for latitude. They are subject to two important discontinuities: (i.) of tabular place when Newcomb's corrections were introduced into the *Nautical Almanac* at the beginning of 1883, the end of my period 117; (ii.) Stone's refractions were used from 1868 to 1877 inclusive.

The following references to previous papers will save much explanation:

Vol. lxiv. p. 421, the numerical values of the arguments are given.

Vol. lxv. December, a similar paper is given for the longitudes.

As an example, I follow through the third line of Table VII. It is there stated that the argument F+D or $2g-g'+2\omega-\omega'$ has a coefficient $-5''\cdot41$ sin in Hansen's tables, and a coefficient $-5''\cdot36$ sin in Brown's theory. In addition to this the reference number 50 is placed against the term, and two other columns are given which must be understood as meaning that when every error is multiplied by $2\sin(\mathrm{F}+\mathrm{D})$ the mean is $+0''\cdot17$, and when every error is multiplied by $2\cos(\mathrm{F}+\mathrm{D})$ the mean is $+0''\cdot40$. In order to understand the details of the arithmetic, the reference number 50 directs the reader to Table I., where it will be seen that the numerical work has been done in two independent ways for this argument, once with the help of an auxiliary angle whose movement in one period of analysis is $400\times26^\circ\cdot311075+12^\circ\cdot156$, or $26^\circ\cdot3414$ in a lunar day; and a second time with the help of an auxiliary angle whose movement is $26^\circ\cdot1818$ in a lunar day. These angles are ${}_{41}\mathrm{A}_3$ and ${}_{55}\mathrm{A}_4$, or angles that go through three and four revolutions in forty-one and fifty-five lunar days respectively. In Table VI. columns 41^s3, 41^c3, 55^s4, 55^c4 give the mean for each period of the errors multiplied by $2\sin{}_{41}\mathrm{A}_3$, $2\cos{}_{41}\mathrm{A}_3$, $2\sin{}_{55}\mathrm{A}_4$, $2\cos{}_{55}\mathrm{A}_4$ respectively. These mean products can be very expeditiously formed owing to the movement of the auxiliary angle in a lunar day being commensurable with 360°. In fact the average time spent